Planning and reporting a data investigation

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Write a data question about how students travel to school. [2 marks]

State the group and a clear time.

Record a category such as walk, car, bus or bicycle.

Answer: For example: Which travel method did students in our class use to arrive at school today?

2. For a comparison of plant heights, choose one unit to use throughout and explain why. [2 marks]

Using one unit prevents a metre value being compared directly with a centimetre value.

Answer: For example, centimetres.

3. A reading record contains 12, 15, blank and 18 minutes. What should happen to the blank entry? [2 marks]

Do not invent a measurement.

Zero would mean the person actually reported no reading.

Answer: Keep it as missing or ask for the value.

4. Choose a suitable display for favourite sport categories. [2 marks]

Separate categories need distinct labelled entries or bars.

A continuous line would wrongly suggest intermediate sports.

Answer: A column graph or frequency table.

5. For 3, 4, 4, 5, 8 library visits, give a supported conclusion using the mode and range. [2 marks]

4 occurs twice.

$8 - 3 = 5$.

Answer: The most common value is 4 visits, and the range is 5 visits.

6. A class measured playground shade on one cloudy morning. Give one limit and one next step. [2 marks]

Identify what was not covered.

Choose repeat measurements that address that limitation. Other sensible plans are acceptable.

Answer: Limit: one morning may not represent other times or weather. Next step: repeat at agreed times on several days.